

What is claimed is:

1. An adjustable wrench comprising:

a wrench body including a wrench body member having a handle portion and a head
5 portion, said head portion defining a stationary jaw;

a movable jaw reciprocally mounted to said head portion of said body member in
alignment with said stationary jaw, said movable jaw including a gear rack portion having a
toothed segment;

a drive mechanism mounted to said head portion of said body member, said drive
10 mechanism being operably connected to said movable jaw for selectively moving said
movable jaw in directions away from and toward said stationary jaw, said drive mechanism
including a worm gear rotatably mounted in said head portion of said body member, said
worm gear having a screw thread drivingly engaging teeth of said toothed segment of said
gear rack portion of said movable jaw; and

15 a positioning device including at least one preset stop for limiting a travel of said
moveable jaw in at least one of said direction away from said stationary jaw and said direction
toward said stationary jaw.

2. The adjustable wrench as defined in claim 1, wherein said at least one preset stop of
20 said positioning device includes a stop member provided on said worm gear and a
complementary stop member provided on said movable jaw so that said stop member of said
worm gear is adapted to engage said complementary stop member of said movable jaw to

limit said travel of said moveable jaw in at least one of said direction away from said stationary jaw and said direction toward said stationary jaw.

3. The adjustable wrench as defined in claim 2, wherein said at least one stop member
5 of said worm gear is formed on one of a start lead and an exit lead of said screw thread of said worm gear.

4. The adjustable wrench as defined in claim 3, wherein said at least one stop member
of said worm gear is formed by substantially radially cutting one of said start lead and said
10 exit lead of said screw thread of said worm gear to form a striker facet defining said at least one stop member of said worm gear.

5. The adjustable wrench as defined in claim 2, wherein said complementary stop
member of said movable jaw is formed on said gear rack portion of said movable jaw outside
15 said toothed segment.

6. The adjustable wrench as defined in claim 5, wherein said complementary stop
member of said movable jaw is defined by an non-toothed segment of said gear rack portion
adjacent to said toothed segment.

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7. The adjustable wrench as defined in claim 1, wherein said positioning device
includes a first preset stop for limiting said travel of said moveable jaw in said direction
toward said stationary jaw to define an inward limit of travel of said moveable jaw and a

second preset stop for limiting said travel of said moveable jaw in said direction away from said stationary jaw to define an outward limit of travel of said moveable jaw.

8. The adjustable wrench as defined in claim 7, wherein said preset stops of said
5 positioning device include opposite first and second stop members provided on said worm gear and opposite first and second stop members provided on said movable jaw complementary to said first and second stop members of said worm gear so that said first stop member of said worm gear is adapted to engage said first complementary stop member of said movable jaw to limit said travel of said moveable jaw in said direction toward said stationary
10 jaw and said second stop member of said worm gear is adapted to engage said second complementary stop member of said movable jaw to limit said travel of said moveable jaw in said direction away from said stationary jaw.

9. The adjustable wrench as defined in claim 8, wherein said first stop member of said
15 worm gear is formed on a start lead of said screw thread of said worm gear and said second stop member of said worm gear is formed on an exit lead of said screw thread of said worm gear.

10. The adjustable wrench as defined in claim 9, wherein said first stop member of
20 said worm gear is formed by substantially radially cutting said start lead of said screw thread of said worm gear to form a first striker facet defining said first stop member of said worm gear and said second stop member of said worm gear is formed by substantially radially

cutting said exit lead of said screw thread of said worm gear to form a second striker facet defining said second stop member of said worm gear.

11. The adjustable wrench as defined in claim 8, wherein said complementary first and
5 second stop members of said movable jaw are formed on said gear rack portion of said movable jaw outside said toothed segment.

12. The adjustable wrench as defined in claim 11, wherein said complementary first
and second stop members of said movable jaw are defined by first and second non-toothed
10 segments of said gear rack portion adjacent to opposite ends of said toothed segment.

13. The adjustable wrench as defined in claim 1, wherein at least one of said wrench body member, said worm gear and said moveable jaw is made of plastic material.

14. The adjustable wrench as defined in claim 1, wherein at least one of said wrench
15 body member, said worm gear and said moveable jaw is made of metal.

15. The adjustable wrench as defined in claim 1, wherein said moveable jaw has a
cored area in the form of an opening through a jaw head of said moveable jaw.
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16. The adjustable wrench as defined in claim 1, wherein said moveable jaw has a
cored area in the form of opposite relieves formed on both side surfaces of a jaw head of the
moveable jaw.

17. The adjustable wrench as defined in claim 1, wherein at least one of said moveable jaw and said stationary jaw is provided with a jaw insert attached to a jaw surface of said moveable jaw.

5 18. The adjustable wrench as defined in claim 17, wherein said jaw insert is made of one of metal and plastic material.

24. The adjustable wrench as defined in claim 17, wherein said jaw insert is attached to said jaw surface of said moveable jaw by one of a threaded fastener and press-fit
10 connection.

19. The adjustable wrench as defined in claim 17, wherein said jaw insert is integrally molded with said moveable jaw.

15 20. The adjustable wrench as defined in claim 17, wherein said jaw insert is made of a magnetic material.

21. The adjustable wrench as defined in claim 17, wherein said jaw insert has a substantially smooth gripping surface.
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22. The adjustable wrench as defined in claim 17, wherein said jaw insert has a substantially texturized gripping surface.

23. The adjustable wrench as defined in claim 1, further comprises a dowel pin mounted within said head portion of body member to support said worm gear and a fastener plug provided to contain said dowel pin in said wrench head.

5 24. The adjustable wrench as defined in claim 1, further comprises a power source mounted in said body member for driving said worm gear.

25. The adjustable wrench as defined in claim 1, wherein said moveable jaw has a jaw surface including two gripping segments oriented with respect to each other substantially at an
10 angle 120° to facilitate engagement with one of a hexagonal bolt head and a hexagonal nut.

26. The adjustable wrench as defined in claim 1, wherein said stationary jaw has a jaw surface including two gripping segments oriented with respect to each other substantially at an
15 angle 120° to facilitate engagement with one of a hexagonal bolt head and a hexagonal nut.

27. The powered adjustable jaw wrench as defined in claim 1, wherein said handle portion of said wrench body member defines an open cavity, said wrench body further including at least one handle cover removably secured to said handle portion of said wrench body member for closing said cavity.

20 28. The powered adjustable jaw wrench as defined in claim 27, wherein at least one of said wrench body member and said at least one handle cover is made of plastic material.